

ABSTRACT

This invention is a circuit that actuates a loudspeaker at input frequencies above a predetermined threshold and mutes the loudspeaker at input frequencies below the threshold. The circuit includes a comparator that generates a pulse train proportional in frequency to an input 5 audio signal. The pulse train is then coupled to a flip flop array. The flip flop array is controlled by a clock having a specified frequency and duty cycle. The clock, in conjunction with the particular number of flip flops, creates a time window in which pulses may pass. The output of the flip flop array is coupled to an enable input of an audio amplifier. When the frequency of the pulse train is great enough to allow a number of pulses equal to or greater than the number of flip 10 flops to pass within the window, the loudspeaker is actuated. Below this frequency, the loudspeaker is muted.